

Listing of the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-23. (Canceled).

Claim 24. (Previously Presented). A bipolar electrosurgical instrument for sealing and cutting tissue, comprising:

 a chassis having a longitudinal axis defined therethrough and first and second end effectors attached thereto, one of said first and second end effectors being movable along said longitudinal axis relative to the other of said first and second end effectors from a first position for positioning tissue therebetween to a second position for grasping tissue between said first and second end effectors, wherein said first and second end effectors include complimenting vessel sealing electrodes which partially matingly engage one another, said electrodes adapted to be connected to a source of electrosurgical energy such that the electrodes are capable of sealing and cutting tissue disposed therebetween upon activation of said electrodes;

 an activator for moving said end effectors from the first to second positions;

 a sensor for measuring the impedance across the tissue held

between said end effectors; and

means for selectively applying electrosurgical energy from an electrosurgical energy source to said end effectors in response to the impedance measurement across the tissue from said sensor.

Claim 25. (Original). A bipolar instrument according to claim 24 wherein the activator includes a handle.

Claim 26. (Previously Presented). A bipolar instrument according to claim 24 wherein at least one of the first and second end effectors is selectively removable from the chassis.

Claim 27. (Original). A bipolar instrument according to claim 24 wherein the first and second end effectors include vessel contacting surfaces which partially matingly engage upon movement of the end effectors from the first to second positions.

Claim 28. (Original). A bipolar instrument according to claim 27 wherein the vessel contacting surface of the first end effector has a first cross section and the vessel sealing surface of the second end effector has a second cross section which compliments the first cross section to engage tissue therebetween.

Claim 29. (Original). A bipolar instrument according to claim 27 wherein the vessel contacting surfaces of the first and second end effectors cooperate to

seal tissue disposed between the end effectors upon application of electrosurgical energy.

Claim 30. (Original). A bipolar instrument according to claim 27 wherein the vessel contacting surfaces of the first and second end effectors cooperate to cut tissue disposed between the end effectors upon application of electrosurgical energy.

Claim 31. (Original). A bipolar instrument according to claim 24 wherein the first end effector includes a first electrode and the second end effector includes a second electrode.

Claim 32. (Original). A bipolar instrument according to claim 31 wherein the second electrode is electrically isolated from the first electrode.

Claim 33. (Previously Presented). A method of applying electrosurgical energy to tissue comprising the steps of:

providing a chassis having a longitudinal axis therethrough and first and second end effectors attached thereto, one of said end effectors being movable along said longitudinal axis relative to the other of said first and second end effectors from a first position for positioning tissue therebetween to a second position for grasping tissue between said first and second end effectors, wherein said first and second end effectors include complimenting vessel sealing

electrodes which partially matingly engage one another, said electrodes adapted to be connected to a source of electrosurgical energy such that the electrodes are capable of sealing and cutting tissue disposed therebetween upon activation of said electrodes;

moving said end effectors from the first to second positions to engage tissue therebetween;

measuring the impedance across the tissue held between said end effectors; and

selectively applying electrosurgical energy from an electrosurgical energy source to said end effectors in response to the impedance measurement across the tissue.